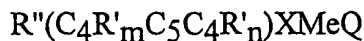


## POLYOLEFIN PRODUCTION

Provided is a catalyst for the polymerisation of olefins of general formula:

10



wherein X is an hetero-atom ligand with one or two lone pair electrons selected from the elements of Group VA or VIA which can be substituted or non-substituted:  
 15  $(C_4R'_mC_5C_4R'_n)$  is a symmetrically substituted, 3,6-substituted fluorenyl; R' is hydrogen or hydrocarbyl radical having from 1-20 carbon atoms, a halogen, an alkoxy, an alkoxy alkyl or an alkylamino or alkylsilylo radical, each R' may be the same or different and m and n independently are 1, 2 3 or 4, with the proviso that the bilateral symmetry is maintained; R'' is a structural bridge between X and the  $(C_4R'_mC_5C_4R'_n)$  ring to impart  
 20 stereorigidity; Q is a hydrocarbyl radical having 1-20 carbon atoms or is a halogen; Me is a Group IIIB, IVB, VB, or VIB metal as positioned in the Periodic Table of Elements; and Me can be in any of its theoretically possible oxidation states.

Also provided are olefin monomers (particularly propylene) polymerised using these  
 25 catalysts to form syndiotactic/atactic block polymers of high molecular weight and comprising at least 70 % of syndiotactic triads.